

Form PTO 1449 Rev. 7-80 <b>Q1PF</b> LIST OF PRIOR ART CITED BY APPLICANT (Use Several Sheets If Necessary)				Atty. Docket No. Mo-6314/LeA-34,326	Serial No. 09/847,081
				Applicant Marco Busch et al	
				Filing Date 05/02/01	Group 1646 1652

## U.S. PATENT DOCUMENTS

EXAMINER INITIALS & TRADEMARK CERT.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DR	AA 5,539,093	07/23/96	Fitzmaurice et al	536	23.2	
DR	AB 5,705,624	01/06/98	Fitzmaurice et al	536	23.2	
DR	AC 5,750,865	05/12/98	Bird et al	500	205	<b>RECEIVED</b>
	AD					APR 10 2002
	AE					
	AF					TECH CENTER 1600/2900
	AG					
	AH					
	AI					
	AJ					
	AK					

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							Yes	No*
DR	AL	96/02650 -	02/01/96	World Patent WIPO				
DR	AM	99/55888 -	11/04/99	World Patent WIPO				
DR	AN	00/09722 -	02/24/00	World Patent WIPO				
	AO							
	AP							

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

DR	AR	-	Nucleic Acids Research, (month unavailable) 1997, Vol. 25, No. 17, pages 3389-3402. Gapped Blast and PSI-BLAST: a new generation of protein database search programs. Stephen F. Altschul, Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller and David J. Lipman.	
		-	FEBS Letters 400 (month unavailable) (1997) pages 271-274, Biosynthesis of isoprenoids in higher plant chloroplasts proceeds via a mevalonate-independent pathway, Hartmut K. Lichtenthaler, Jörg Schwender, Andrea Disch, Michel Rohmer.	
DR	AS	-	Plant Molecular Biology 30: (month unavailable) 1996, pages 807-819, Cloning and Characterization of the cDNA for lycopene $\beta$ -cyclase from tomato reveals decrease in its expression during fruit ripening. Iris Pecker, Rachel Gabbay, Francis X. Cunningham Jr. and Joseph Hirschberg.	
		-		
DR	AT	-		
		-		
EXAMINER		DATE CONSIDERED	4/23/03	
EXAMINER Initial if referenced considered, whether or not citation is in conformance with MPEP 609: Draw line through if not in conformance and not considered. Include copy of this form with next communication to applicant.				

\*

Neither English Language Equivalent nor an English Language Translation is available.

Form PTO 1449 U.S. Department of Commerce Rev. 7-80 Patent and Trademark Office			Atty. Docket No. Mo-6314/LeA-34,326	Serial No. 09/847,081
LIST OF PRIOR ART CITED BY APPLICANT (Use Several Sheets If Necessary)			Applicant Marco Busch et al	
			Filing Date 05/02/01	Group 4646 1652

APR 08 2002

## U.S. PATENT DOCUMENTS

EXAMINER INITIALS <i>DR</i>	TRADEMARK NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA					
	AB					
	AC					
	AD					
	AE					
	AF					
	AG					
	AH					
	AI					
	AJ					
	AK					

RECEIVED

APR 10 2002

TECH CENTER 1600 2900

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							Yes	No*
	AL							
	AM							
	AN							
	AO							
	AP							

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>DR</i>	AR	-	Eur. J. Biochem. 247, (month unavailable) (1997) Pages 942-950. Chloroplast import of four carotenoid biosynthetic enzymes in vitro reveals differential fates prior to membrane binding and oligomeric assembly, Michael Bonk, Benedikt Hoffmann, Johannes Von Lintig, Michael Schledz, Salim Al-Babili, Elias Hobeika, Hans Kleing and Peter Beyer.
		-	Proc. Natl. Acad. Sci. USA, Vol. 85, pages 7054-7058, October 1988. Carotenoid biosynthesis: Isolation and characterization of a bifunctional enzyme catalyzing the synthesis of phytoene. Odette Dogbo, Andre Laferriere, Alain D Harlingue, and Bilal Camara.
<i>DR</i>	AS	-	Nature Vol. 391, 19 February 1998 pages 806-811, Potent and specific genetic interference by double-stranded RNA in <i>Caenorhabditis elegans</i> , Andrew Fire, SiQun Xu, Mary K. Montgomery, Steven A. Kostas, Samuel E. Driver & Craig C. Mello.
		-	
<i>DR</i>	AT	-	
		-	

EXAMINER

DATE CONSIDERED

4/23/03

EXAMINER Initial if referenced considered, whether or not citation is in conformance with MPEP 609: Draw line through if not in conformance and not considered. Include copy of this form with next communication to applicant.

\*

Neither English Language Equivalent nor an English Language Translation is available.

Form PTO 1449 Rev. 7-80	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. Mo-6314/LeA-34,326	Serial No. 09/847,081
LIST OF PRIOR ART CITED BY APPLICANT <i>APR 08 2002</i> (Use Several Sheets If Necessary)		Applicant Marco Busch et al	
		Filing Date 05/02/01	Group <i>4646-1652</i>

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						<b>RECEIVED</b>
	AC						<i>APR 10 2002</i>
	AD						
	AE						<i>TECH CENTER 1600/2900</i>
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							Yes	No*
	AL							
	AM							
	AN							
	AO							
	AP							

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>JRC</i>	AR	-	The Plant Journal (month unavailable) (1995) 8(5), pages 693-701. Constitutive expression of a fruit phytoene synthase gene in transgenic tomatoes causes dwarfism by redirecting metabolites from the gibberellin pathway, Rupert G. Fray, Andrew Wallace, Paul D. Fraser, Daniel Valero, Peter Hedden, Peter M. Bramley and Donald Grierson.				
		→	The Plant Journal (month unavailable) (1997) 12(3), pages 625-634, Light-dependent regulation of carotenoid biosynthesis occurs at the level of phytoene synthase expression and is mediated by phytochrome in <i>Arabidopsis thaliana</i> seedlings. Johannes von Lintig, Ralf Welsch, Michael Bonk, Giovanni Giuliano, Alfred Batschauer and Hans Kleinig.				
<i>JRC</i>	AS	←	The Plant Journal (month unavailable) (1992) 2(3), pages 417-422. Technical Advance, Complementation of <i>Saccharomyces cerevisiae</i> auxotrophic mutants by <i>Arabidopsis thaliana</i> cDNAs, Michele Minet, Marie Elisabeth Dufour and Francois Lacroute.				
		AT					

EXAMINER

DATE CONSIDERED

*4/23/03*

EXAMINER Initial if referenced considered, whether or not citation is in conformance with MPEP 609: Draw line through if not in conformance and not considered. Include copy of this form with next communication to applicant.

\*

Neither English Language Equivalent nor an English Language Translation is available.

Form PTO 1449 Rev. 7-80	U.S. Department of Commerce Patent and Trademark Office	Att'y. Docket No. 100-6314/LeA-34,326	Serial No. 09/847,081
LIST OF PRIOR ART CITED BY APPLICANT APR 08 2002 (Use Several Sheets If Necessary)		Applicant Marco Busch et al	
		Filing Date 05/02/01	Group -1646 1652

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

RECEIVED

APR 10 2002

TECH CENTER 1600/2900

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							Yes      No*
	AL						
	AM						
	AN						
	AO						
	AP						

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>DR</i>	AR	-	Biochemica et Biophysica Acta 1392, (month unavailable) (1998) pages 51-58, Expression of an active phytoene synthase from erwinia uredovora and biochemical properties of the enzyme, Ute Neudert, Isabel M. Martinez-Ferez, Paul D. Fraser, Gerhard Sandmann.
		-	The Plant Cell, Vol. 7, pages 2139-2149, December 1995, Genetic Dissection of Carotenoid Synthesis in Arabidopsis Defines Plastoquinone as an Essential Component of Phytoene Desaturation, Susan R. Norris, Terrence R. Barrette, and Dean DellaPenna.
<i>DR</i>	AS	-	Plant Molecular Biology, 37: pages 1045-1053, (month unavailable) 1998. Regulation of phytoene desaturase expression is independent of leaf pigment content in Arabidopsis thaliana. Carolyn M. Wetzel and Steven R. Rodermel.
		-	
<i>DR</i>	AT	-	
		-	

EXAMINER

DATE CONSIDERED

4/23/03

EXAMINER Initial if referenced considered, whether or not citation is in conformance with MPEP 609: Draw line through if not in conformance and not considered. Include copy of this form with next communication to applicant.

\*

Neither English Language Equivalent nor an English Language Translation is available.

Form PTO 1449 Rev. 7-80	U.S. Department of Commerce Patent and Trademark Office <b>LIST OF PRIOR ART CITED BY APPLICANT</b> (Use Several Sheets If Necessary)	Atty. Docket No. Mo-6314/LeA-34,326	Serial No. 09/847,081
		Applicant Marco Busch et al	
		Filing Date 05/02/01	Group 4646 (652)

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER <i>O I P</i>	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							Yes	No*
	AL							
	AM							
	AN							
	AO							
	AP							

**OTHER PRIOR ART** (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>DR</i>	AR	-	The Plant Journal (month unavailable) (1996) 9(4), pages 505-512, Regulation of a carotenoid biosynthesis gene promoter during plant development, Vittorio Corona, Benedetto Aracri, Georgina Kosturkova, Glenn E. Bartley, Letizia Pitto, Lucia Giorgetti, Pablo A. Scolnik and Giovanni Giuliano.
		-	FEBS Letters 400 (month unavailable) (1997) pages 359-362, Role of carotene in the rapid turnover and assembly of photosystem II in Chlamydononas reinhardtii, Achim Trebst, Brigitte Depka.
<i>DR</i>	AT	-	The Plant Cell, Vol. 8, pages 1613-1626, September 1996 Functional Analysis of the $\beta$ and $\epsilon$ Lycopene Cyclase Enzymes of Arabidopsis Reveals a Mechanism for Control of Cyclic Carotenoid Formation. Frances X. Cunningham, Jr., Barry Pogson, Zairen Sun, Kelly A. McDonald, Dean DellaPenna, and Elizabeth Gantt.
EXAMINER	<i>BL</i>	DATE CONSIDERED	<i>4/23/03</i>

EXAMINER Initial if referenced considered, whether or not citation is in conformance with MPEP 609: Draw line through if not in conformance and not considered. Include copy of this form with next communication to applicant.

\*

Neither English Language Equivalent nor an English Language Translation is available.

Form PTO 1449 Rev. 7-80	U.S. Department of Commerce Patent and Trademark Office <b>LIST OF PRIOR ART CITED BY APPLICANT</b> (Use Several Sheets If Necessary)	Atty. Docket No. Mo-6314/LeA-34,326	Serial No. 09/847,081
		Applicant Marco Busch et al	
		Filing Date 05/02/01	Group 1640 1652

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL O I P E	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA					
APR 08 2002	AB					
	AC					
	AD					
	AE					APR 10 2002
	AF					
	AG					TECH CENTER 1600/2900
	AH					
	AI					
	AJ					
	AK					

**RECEIVED**

APR 10 2002

TECH CENTER 1600/2900

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							Yes	No*
	AL							
	AM							
	AN							
	AO							
	AP							

**OTHER PRIOR ART** (Including Author, Title, Date, Pertinent Pages, Etc.)

DR	AR	-	Albrecht et al: "molecular cloning and functional expression in <i>E. coli</i> of a novel plant enzyme mediating zeta-carotene desaturation" FEBS Letters, Elsevier Science Publishers, Amstredam, NL, Bd. 372 1995, Seiten 199-202, XP002112107 ISSN: 0014-5793 .
		-	Bartley G. E. et al: "Zeta carotene desaturase from tomato" Plant. Physiol., Bd. 121, 1999, Seiten 1383-1383, XP001008491 Title and abstract & Database EMBL 'Online! Accession no: AF195507 *Zusammenfassung*
DR	AS	-	Roemer S Et Al: "Expression of the Genes Encoding the Early Carotenoid Biosynthetic Enzymes in Capsicum Annuum" Biochemical and Biophysical Research Communications, Academic Press Inc. Orlando, FL, US, Bd. 196, Nr. 3, 15. November 1993 (1993-11-15), Seiten 1414-1421, XP000882783 ISSN: 0006-291X.
		-	
DR	AT	-	
		-	

EXAMINER

DATE CONSIDERED

4/23/03

EXAMINER Initial if referenced considered, whether or not citation is in conformance with MPEP 609. Draw line through if not in conformance and not considered. Include copy of this form with next communication to applicant.

\*

Neither English Language Equivalent nor an English Language Translation is available.

Form PTO 1449 Rev. 7-80	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. Mo-6314/LeA-34,326	Serial No. 09/847,081
LIST OF PRIOR ART CITED BY APPLICANT (Use Several Sheets If Necessary)		Applicant Marco Busch et al	
		Filing Date 05/02/01	Group 1640 1652

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA					
	AB					
	AC					
	AD					
	AE					
	AF					
	AG					
	AH					
	AI					
	AJ					
	AK					

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							Yes	No*
	AL							
	AM							
	AN							
	AO							
	AP							

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>JM</i>	AR	-	Bartley et al: "cDNA cloning, expression during development, and genome mapping f PSY2, a second tomato gene encoding phytoene synthase" Journal of Biological Chemistry, American Society of Biological Chemists, Baltimore, MD, US, Bd. 268, Nr. 34, 5. Dezember 1993 (1993-12-05), Seiten 25718-25721, XP002112337 ISSN: 0021-9258.
		-	Bartley G E et al: "A Tomato Gene Expressed During Fruit Ripening Encodes and Enzyme of the Carotenoid Biosynthesis Pathway" Journal of Biological Chemistry, American Society of Biological Chemists, Baltimore, MD, US, Bd. 267, Nr. 8, 15. März 1992 (1992-03-15), Seiten 5036-5039, XP000999439 ISSN: 0021-9258.
	AT		
EXAMINER			DATE CONSIDERED <i>4/23/03</i>

EXAMINER Initial if referenced considered, whether or not citation is in conformance with MPEP 609: Draw line through if not in conformance and not considered. Include copy of this form with next communication to applicant.

\* Neither English Language Equivalent nor an English Language Translation is available.